

MARIK, V.

"After the 4th Congress of the Trade-Unions." P. 241.

NOVA TECHNKA. (Rada vedeckych technickych spolecnosti pri Ceskoslovenske akademii ved). Praha, Czechoslovakia, No. 6, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncia.

MARIK, V.

For a higher level. p.1. (Technicke Noviny, Praha, Vol. 2, No. 24, Dec. 1954)

SO: Monthly list of East European Accessions (EEAL), LC Vol 4, No. 6, June 1955, Uncl

MARIK, V.

Preparation of the Plan for 1955, p. 1. (Technicke Noviny, Praha, Vol 2, No. 16, August 1954)

SO: Monthly list of East European Accessions, (EEAL), LC Vol 4, No. 6, June 1955, Uncl

PROKS, Eduard; VABIK, Robert

Measurement of the coating material consumption on coating machines. Dravo 19 no.4:132-133 Ap '64

1. Unelacke-prumyslone zavody National Enterprise, Brno, C.S.

L 09911-67

ACC NR: AP6032756

and 1 table. [Based on author's abstract]

SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 003/ SOV REF: 001/
OTH REF: 004/

L 09911-67

ACC No: AP6032756

SOURCE CODE: CZ/0039/66/027/009/0554/0559

32

AUTHOR: Marik, Petr (Graduate physicist)

ORG: Chair of Electronics and Vacuum Physics, Charles University, Prague
(Katedra elektroniky a vakuove fyziky, Karlova universita)

TITLE: Transistorized emission stabilizer for a hot-cathode ionization manometer

SOURCE: Slaboproudy obzor, v. 27, no. 9, 1966, 554-559

TOPIC TAGS: manometer, ionization manometer, transistor, transistorized stabilizer, transistorized circuit

ABSTRACT: A stabilizing circuit for supplying a hot-cathode ionization pressure gage is discussed. After a short description of its operation and a survey of the stabilizer types used until now, the operation of a transistor as a power switch is analyzed briefly. The circuit is described and detailed instructions for regulating the device are given. Voltage curves and values within the circuit are stated for comparison and the dependence of the emission current of the gage on the pressure and on the network's voltage is presented graphically. Orig. art. has: 8 figures

UDC: 621.316.722.1.066.7 531.788

Card

MARIK, Otakar

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees:

MD

Director of Advisory Department, OUNZ /Okresni ustav narodniho zdravi;
Affiliation: Okres Institute of Public Health/ (Posudkove oddeleni OUNZ),

Source: Prague, Prakticky Lekar, Vol 41, No 11, 1961, pp 513-515.
Louny.

Data: "External Epicondilitis of Humerus."

67

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L 31923-66

ACC NR: AP6012740

spot is low, and the generation of decelerated waves is the same as that of the Alfvén waves. Estimates of the Alfvén wave flux differ only slightly from qualitative estimates, and are higher by one order than those for the flux from ordinary active regions. Therefore the chromosphere above the spot should have other properties. The author expresses gratitude to S. B. Pikel'ner for his advice and discussion. Orig. art. has: 5 figures, 13 formulas and 2 tables. [Based on author's abstract.] [AM]

SUB CODE: 03, 20/ SUBM DATE: 24Jun65/ ORIG REF: 002/ OTH REF: 005

L 31923-66 EWT(1)/EWP(m)/T-2 IJP(c) GW
ACC NR: AP6012740 SOURCE CODE: UR/0033/66/043/002/0400/0406

AUTHOR: Marik, M.

ORG: Budapest University im. Etvesh (Budapeshtskiy universitet); State Astronomical
Institute im. P. K. Shternberg (Gos. astronomicheskii in-t)

TITLE: The generation of magnetohydrodynamic waves in sunspots 12

SOURCE: Astronomicheskii zhurnal, v. 43, no. 2, 1966, 400-406

TOPIC TAGS: sunspot, magnetic field, wave generation, magnetohydrodynamic wave
generation, kinetic energy, convective energy, convection

ABSTRACT: The depth of the layer at which the magnetic field appreciably influences
convection is determined from the condition of equality of magnetic energy of the
field beneath the spot and convective kinetic energy in accordance with the Vitense
model. The flux of emitted Alfvén waves is estimated, assuming that the wave ampli-
tude in this zone is equal to convective velocity. Allowance is made for the reflec-
tion of waves, which leads to an approximately constant wave amplitude with height.
It is shown that allowance for the magnetic field has only a small influence on the
model of the convective zone to the critical layer. Therefore, the mean velocity in
the critical zone, which determines generation, differs only slightly as compared to
the Vitense model. In the last part of the paper wave generation is computed by
Kulsrud's method. It is shown that the generation of accelerated waves beneath the

Card 1/2

UDC: 523.746

MARIK, M.

Geocentric opposition ephemerides of the libration points L_4 and L_5 in the earth-moon system for the year 1963. Acta astronom 13 no.1:80-86 '63.

1. Astronomisches Institut der Universität L. Eötvös, Budapest.

MARIK, Miklos, egyetemi tanarseged

Protuberances are the shining mountains of the sun. Elet tud 17 no.7:
211-214 F '62.

MARIK, Miklos

Surface structure of the sun. Elet tud 15 no.31:980-982
31 JI '60.

1. Eotvos Lorand Tudomanyegyetem Csillagaszati Intezete, Budapest.

MARIK, M. (Budapest, XI., Stoczek utca 2.Ungarn); SOMOGYI, M. (Budapest, XI,
Stoczek utca 2.Ungarn); SZABO, A. (Budapest, XI., Stoczek utca 2.Ungarn)

The effect of air admission on the characteristics of centrifugal
pumps. Periodica polytechn eng 5 no.1:25-30 '61.

1. Lehrstuhl für Strömungsmaschinen, Technische Universität, Budapest.
Vorgelegt von Prof. Dr. J. Varga.

(Centrifugal pumps)

MARIC, Luka, dr. (Zagreb); CRNKOVIC, Branko (Zagreb)

Sedimentary rocks of the Sana Palaeozoic in the mining region of Ljubija. Geol vjes Hrv 14:143-158 '60 (publ. '61).

1. Institute of Mineralogy, Petrology and Ore Deposits, Technological Faculty, University of Zagreb, Zagreb, Kaciceva 26. 2. Clan Urednickog odbora, referent, "Geoloski vjesnik" (for Maric).

MARIK, K.

TECHNOLOGY

Periodical: ZELEZNICAR. No. 12, Dec. 1958.

MARIK, K. Third anniversary of the Cultural Center of Transportation and
Communication Services. p. 25.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

MARIK, Jiri, inz.; VALACH, Miroslav, inz. CSc.

"Principles of cybernetics" by H.Greniewski. Reviewed by Jiri Marik, Miroslav Valach. Automatizace 6 no.11:Suppl.: Technicka literatura:insert N '63.

MARIK, Jiri; VALACH, Miroslav

"Automatic electronic data processing and its importance
for enterprise management" by Andreas Diemer. Reviewed
by Jiri Marik and Miroslav Valach. Aplikace mat 8 no.1:72-73
'63.

MARIK, Jan

Real biquadratic polynomials. Cas pro pest mat 90 no.1:33-42 F '65.

1. Faculty of Mathematics and Physics of Charles University, Prague 8-Karlin, Sokolovska 83. Submitted September 9, 1963.

KRAL, Josef; MARIK, Jan

Integration on a smooth surface according to the Hausdorff measure.
Cas pro pest mat 89 no.4:433-448 0 '64.

1. Faculty of Mathematics and Physics of Charles University, Prague
8, Sokolovska 83. Submitted November 9, 1963.

MARIK, Jan

Polynomials with only real roots. Cas pro pest mat 89 no.1:5-9
F '64.

Power series with nonnegative coefficients. Ibid.:102

1. Faculty of Mathematics and Physics, Charles University, Prague
8-Karlin, Sokolovska 83. Submitted September 13, 1961.

MARIK, Jan; RAB, Milos

Nonoscillatory linear differential equations of the second order.
Chekhosl mat zhurnal 13 no.2:209-225 Ja '63.

1. Matematicko-fyzikalni fakulta, Karlova universita, Praha 2,
Ke Karlovu 3 (for Marik). 2. Prirodovedecka fakulta university
J.E. Purkyne, Brno, Kotelarska 2 (for Rab).

MARIK, Jan (Prahá); NEUBAUER, Milos (Prahá)

Series with nonnegative members. Cas pro pest mat 85 no.2:188-197
My '60. (EEAI 9:10)
(Series)

Remark on the Length of a Jordan Curve

Mafik, Jan. Eine Bemerkung über die Länge einer
 Jordanschen Kurve. Casopis Pěst. Mat. 83 (1958), 91-5.
 (Czech. Russian and German summaries)
 For every measurable set A of the complex z -plane,
 $z = x_1 + ix_2$, let $P_A [B_A]$ be the class of all real [complex]
 polynomials $p(x_1, x_2)$ such that $|p(x_1, x_2)| \leq 1$ for all
 $x_1 + ix_2 \in A$. Let $\|A\|_k = \text{Sup}(A) \int (\partial p / \partial x_k) d\mu$, $k=1, 2$, where
 μ is the Lebesgue measure in the z -plane, and Sup is taken
 in P_A , and $\|A\| = \text{Sup}(A) \int \text{div } p \, d\mu$, where Sup is taken in
 B_A . Let $C: z=f(t)$, $a \leq t \leq b$, $f = f_1 + if_2$, be any closed simple
 curve in the z -plane, G the interior of C , d the Jordan
 length of C , $0 < d \leq +\infty$, v_k the total variation of f_k ,
 $k=1, 2$. The author proves that for any measurable set A ,
 $GC \subset \bar{A}$, we have $v_1 = \|A\|_2$, $v_2 = \|A\|_1$, $d = \|A\|$.
 L. Cesari (Baltimore, Md.)

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I-FIW

M.R. R. J. J.

$$P(A, v) = \int_A \operatorname{div} v dx = \int_D (v \cdot \nu) d\phi, \phi(D) = \|A\|,$$

for all vectors $v \in \mathcal{B}_A$, where $(v \cdot \nu)$ denotes the scalar product. Thus P depends only on the values of v on the

boundary D of A as in the elementary case. By a limit process $P(A, v)$ is then extended into a linear functional $R(A, f)$ defined for all bounded vectors $f(x)$, $x \in D$, B -measurable on D , where A is any set $A \in \mathcal{A}$. Also the relation holds

$$R(A, f) = \int_D (f \cdot \nu) d\phi.$$

T.H.
2/3

If $T = (\varphi_1, \dots, \varphi_m)$ is any continuous one-one mapping of class C_1 from an open set $G \subset E_m$ into the set $T(G) \subset E_m$ with functional determinant different from zero everywhere in G , the functional matrix $M(x)$ is defined as the matrix whose rows are $\operatorname{grad} \varphi_1, \dots, \operatorname{grad} \varphi_m$. Then it is proved that for every set $A \in \mathcal{A}$, $\bar{A} \subset G$, with boundary D , for every bounded Borel vector $w(x)$, $x \in D$, we have $R(T(A), w) = R(A, v)$, where $v(x) = \operatorname{adj} M(x) \cdot w(T(x)) \cdot \operatorname{sgn} \det M(x)$. [Previous papers of the author on the subject: Časopis Pěst. Mat. 79 (1954), 3-40; 81 (1956), 79-82;

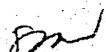
Mařik, Jan. The Dirichlet problem. Časopis Pěst. Mat. 82 (1957), 257-282. (Czech, Russian and English summaries)

A discussion by elementary direct methods of the Dirichlet problem for unbounded regions, the boundary functions being defined only on the set of finite boundary points. The author appears to be unfamiliar with the extensive work of Brelot on the generalized Dirichlet problem, from which the main results of the present paper follow easily.

M. G. Arsove (Paris).

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August 10, 1959

MARIK, J.

Transformation of simple integrals. In Russian.

P. 93, (Casopis Pro Pestovani Matematiky) Vol. 82, no. 1, Mar. 1957
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

MARIK, J.

Functionals over the space of functions continuous and limited in a topologic space. In French.

P. 86 (STUDIA MATHEMATICA) Poland, Vol. 10, No. 1, 1957

SO: Monthly Index of European Accessions (MEL) Vol. 6, No. 11, November 1957

MARK, JMA

Math. Jan. On the measure of Baire and Borel. Casopis Pěst. Mat. 81 (1956), 431-450. (Czech)

1-F/W

3

This paper is largely expository, but also contains some new results. Let P be a topological space, \mathcal{G} the family of open subsets of P , \mathcal{G}^* the family of \mathcal{G} of the form $\{x: x \in P, f(x) > 0\}$ for a continuous real-valued function f on P . The σ -algebra of subsets of P generated by \mathcal{G} (\mathcal{G}^*) is denoted by \mathfrak{B} (\mathfrak{B}^*) and is called the family of Baire (Baire) sets in P . Let μ be a countably additive, non-negative measure on \mathfrak{B}^* (a Baire measure), such that $\mu(\emptyset) = 0$. Let $\mathfrak{B} = \mathfrak{B}(\mu)$ be the family of all ACP such that there are sets $G_n \in \mathcal{G}^*$ ($n=1, 2, 3, \dots$) with the property that $AC \bigcup_{n=1}^{\infty} G_n$ and $\mu(G_n) < \infty$ for all n . A Baire measure μ is said to have the property V_P if $\mu(B) < \infty$ implies that $B \in \mathfrak{B}$. A Baire measure μ is said to have property W_P if there is a Borel measure λ on P such that: 1) $B \in \mathfrak{B}^*$ implies that $\lambda(B) = \mu(B)$; 2) $G \in \mathcal{G} \cap \mathfrak{B}$ implies that $\lambda(G) = \sup\{\mu(H): H \in \mathfrak{B}^*, H \subset G\}$; 3) $B \in \mathfrak{B}$ and $B \notin \mathfrak{B}$ imply $\lambda(B) = \infty$; 4) $B \in \mathfrak{B}$ implies that $\lambda(B) = \inf\{\lambda(G): G \in \mathcal{G}, G \supset B\}$. Theorem: Let P be a completely regular space and let μ be a Baire measure with property V_P . For every set F of the form G^* with $G \in \mathcal{G}^*$, suppose that there are compact sets K_1, K_2, \dots such that $\sup\{\mu(H): H \in \mathfrak{B}^*, HCF \cap (\bigcup_{n=1}^{\infty} K_n)\} = 0$. Then μ has property W_P . Theorem: Let P be normal and countably paracompact or Hausdorff and paracompact. Then every Baire measure with property V_P also has property W_P . E. Hewitt.

11

11

Marik, J.

Marik, Jan. A note on non-dense sets in E_m . Casopis
Pěst. Mat. 81 (1956), 337-341. (Czech. Russian and
English summaries)

1-F1W

Let E_m be Cartesian m -space, BCE_m , and

$$x = [x_1, \dots, x_{m-1}] \in E_{m-1}.$$

Denote by $N(i, B)$ the set of all $x \in E_{m-1}$ for which the set

$$B \cap \{y: y = [x_1, \dots, x_{i-1}, t, x_i, \dots, x_{m-1}]\}$$

is non-denumerable. Let $M(i, B)$ be the closure of $N(i, B)$,
and let R^m be the class of closed BCE_m for which each of
 $M(i, B)$, $1 \leq i \leq m$, has measure 0. These results are proved:

- (1) If BCE_m is non-dense, if $N(1, B)$ has measure 0, and if
 $N(2, B)$ is of the first category, then B has measure 0.
- (2) If $B \in R^m$ is non-dense, then B has measure 0.

V. E. Beneš (Murray Hill, N. J.)

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MARIK, J.

More on quadratic polynomials which absorb many prime numbers. p. 241.

CASOPIS PRO PESTOVANI MATEMATIKY, Vol. 81, no. 2, May 1956.
Czechoslovakia.

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 5, no. 11, Nov. 1956.

Marik, J. Bohumil Dobrovolny

Prehled technicke matematiky (Survey of Technical Mathematics);
a book review. P. 89
CASOPIS PRO PESTOVANI MATEMATIKY. (Ceskoslovenska akademie ved.
Matematicky ustav) Praha
Vol. 81, no. 1, Apr. 1956
4th Congress of Czechoslovak Mathematicians; proceedings. P. 91

Source: EEAL - LC Vol. 5. No. 10 Oct. 1956

Matik. Jan. The surface integrals. Czechoslovak Math. J. 6(81) (1956), 522-558. (Russian summary)

Let E_m be the Euclidean m space and $|x|$ the Euclidean norm. The norm $\|A\|$ of a measurable bounded set ACE_m is defined as the supremum of the integral $\int_A \text{div } v dx$, where the supremum is taken in the class \mathcal{B}_A of all real vectors $v=v(x)=(v_1, \dots, v_m)$, $x \in E_m$, where each v_j is a polynomial in x_1, \dots, x_m and $|v| \leq 1$ in A . The class \mathcal{A} of all measurable bounded sets ACE_m is considered for which $\|A\| < +\infty$. The class \mathcal{A} is very large and admits of various characterizations. Let E_{m-1}^j denote the $m-1$ space of points $y^j=(x_1, \dots, x_{j-1}, x_{j+1}, \dots, x_m)$ for each $j=1, \dots, m$, and let $A(y^j)$ denote the intersection of A with the straight line $x^j=y^j$. If $A(y^j)$ differs from the union of $r=r(y^j) < +\infty$ disjoint intervals $(a_1, b_1), \dots, (a_r, b_r)$ for a set of linear measure zero, and if (a) the function $r=r(y^j)$ is B -measurable and L -integrable in E_{m-1}^j , (b) the sets A_-, A_+ of all points $(y^j, a_i), (y^j, b_i)$, $i=1, \dots, r$, are B -measurable in E_m ($j=1, \dots, m$), then $A \in \mathcal{A}$. In particular any convex bounded set belongs to \mathcal{A} . The author shows that for every set $A \in \mathcal{A}$ with (compact) boundary D , there exists a measure ρ on D (surface measure) and a vector ν on D with $|\nu|=1$ (normal vector) such that

Marik, J.

Surface integral. P. 79
CASOPIS PRO PESTOVANI MATEMATIKY. (Ceskoslovenska akademie ved.
Matematicky ustav) Praha
Vol. 81, no. 1, Apr. 1956

Source: EEAL - LC Vol. 5. No. 10 Oct. 1956

MARRIK, JAN

1-FW

c)
$$\sum_{n=1}^{\infty} \int_{G_n} |v(\varphi_n(t))| |\omega^{\varphi_n}(t)| dt < \infty,$$

Under these conditions, it is shown that

$$\int_A \operatorname{div} v(z) dz = \sum_{n=1}^{\infty} \int_{G_n} v(\varphi_n(t)) \omega^{\varphi_n}(t) dt.$$

In the proof, essential use is made of the relation

$$\int_G F(t) |D\lambda(t)| dt = \int_{E_m} \Phi(x) dx,$$

where $G \subset E_m$ is open, λ is a mapping, continuous with continuous partial derivatives, of G into E_m , $D\lambda(t)$ is the functional determinant of λ , F is a function on G such that $\int_G F(t) |D\lambda(t)| dt$ exists, and $\Phi(x) = \sum_{\lambda^{-1}(x)} F(t)$.

[Remark: The proof appears to be obscure on p. 392 where an isolated set of real numbers is ordered

$$\dots < y_{-1} < y_0 < y_1 < \dots$$

although the size of the interval of isolation seems to depend on the point.) — C. Goffman (Norman, Okla.).

2

7/2 *Small*

MARIK, JAN

Matik, Jsa. Bemerkungen zur Theorie des Oberflachen-
Integrals, Czechoslovak Math. J. 6(81) (1956), 387-
400. (Russian. German summary)

1-FW

Let E_m be euclidean m space. In this paper, a surface is a mapping φ , continuous with continuous partial derivatives, of an open $G \subset E_{m-1}$ into E_m . φ is called associated with a set $A \subset E_m$ if for every $b \in G$ there is a neighborhood $U \subset G$ of b and $\epsilon > 0$ such that for $t \in U$, $0 < \alpha < \epsilon$, we have $\varphi(t) - \alpha w^\varphi(t) \in A$ and $\varphi(t) + \alpha w^\varphi(t) \in A$, where $w^\varphi(t)$ is the outer product of the $m-1$ partial derivative vectors of $\varphi(t)$.

Let H be the boundary of A . Let G_n ($n=1, 2, \dots$) be a sequence of open sets in E_{m-1} and φ_n ($n=1, 2, \dots$) mappings of G_n associated with A such that the sets $\varphi_n(G_n)$ are pair-wise disjoint and the projections of the set $H - \bigcup_{n=1}^{\infty} \varphi_n(G_n)$ into the coordinate hyperplanes all have $(m-1)$ -dimensional measure zero.

Let v be a continuous mapping of the closure \bar{A} of A into E_m satisfying the conditions: a) The partial derivatives exist, except on a set negligible in a sense specified in the paper, and their integrals over A are finite. b) For every $\epsilon > 0$, there is a $C > 0$ such that for all $s \in A$ with $|z| > C$ we have $|v(s)| < \epsilon$.

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MARK, JAN

Math. Jan. Transformation of m -dimensional Lebesgue Integrals, Czechoslovak Math. J. 6(81) (1956), 212-216. (Russian summary)

1-F/W

Let J be the Jacobian of a continuously differentiable mapping T into Euclidean m -space, of an open subset G of this space, and let $N(x)$ be the set $T^{-1}(x)$. Suppose further that f is a real function such that $|J|f$ has, on G , the integral I (finite or infinite). Then I is the integral on $T(G)$ of the function $g(x) = \sum_{t \in N(x)} f(t)$, and in particular this function exists almost everywhere in $T(G)$.

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L. C. Young (Madison, Wis.)

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Smw

Ma^y K, J 377

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1-FW

spaces of functions on P , $\mathcal{N}CM$, and if $f \in \mathcal{M}$, $g \in \mathcal{N}$, and $\mathcal{N} \subset \mathcal{N}_g$ implies $f \in \mathcal{N}$, then \mathcal{N} is said to be a normal part of \mathcal{M} . Theorem: Let \mathcal{A} be a σ -algebra of subsets of P , and let \mathcal{B} be a normal part of the space of all finite-valued \mathcal{A} -measurable functions of P . Then every non-negative linear functional on \mathcal{B} has the property (*). For the case in which \mathcal{A} is all subsets of P , this theorem is due to G. W. Mackey [Bull. Amer. Math. Soc. 50 (1944), 719-722; MR 6, 70]. Theorem: Let P be a topological space and let \mathcal{B} be a normal part of the space of all continuous real-valued functions on P . Then every non-negative linear functional on \mathcal{B} has the property (*). For the case in which \mathcal{B} is all continuous functions on P , this theorem is due to the reviewer [Fund. Math. 37 (1950), 161-189; MR 13, 147]. Several other sufficient conditions for (*) always to hold are also given.

E. Hewitt.

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MAZIK, JAN

Czechoslovak Math. J. 5(80) (1955), 467-487; 6(81) (1956), 387-400; MR 16, 492; 19, 256; 18, 796. For the literature and relevant work on the subject (not quoted) see K. Krickeberg, Math. Nachr. 10 (1953), 261-314; 11 (1954), 35-60; 12 (1954), 341-365; MR 15, 611, 692; 16, 807.]

L. Cesari (Lafayette, Ind.)

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MARIK, JAN

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1-FW

✓ Marik, Jan. La représentation d'une fonctionnelle par une intégrale, Czechoslovak Math. J. 5(80) (1955), 467-487. (Russian. French summary)

Let P be any non-void set, and \mathfrak{B} a linear space of real-valued functions defined on P such that $f \in \mathfrak{B}$ implies $|f| \in \mathfrak{B}$ and $\min(f, 1) \in \mathfrak{B}$. Let J be a non-negative linear functional defined on \mathfrak{B} such that (*) $f_n \in \mathfrak{B}, f_1 \geq f_2 \geq \dots$ and $\lim_{n \rightarrow \infty} f_n(p) = 0$ for all $p \in P$ imply that $\lim_{n \rightarrow \infty} J(f_n) = 0$. Many writers, beginning with P. J. Daniell [Ann. of Math. (2) 19 (1918), 279-294], have studied the representability of J by an integral with respect to a countably additive measure μ on P such that all f in \mathfrak{B} are μ -measurable [see, e.g., Loomis, Amer. J. Math. 76 (1954), 168-182; MR 15, 63f; Glöcksberg, Duke Math. J. 19 (1952), 253-261; MR 14, 288; M. H. Stone, Proc. Nat. Acad. Sci. U.S.A. 34 (1948), 336-342, 447-455, 483-490; 35 (1949), 50-58; MK 10, 24, 107, 239, 308; and the reviewer, Ark. Mat. 2 (1952), 269-282; MR 14, 545]. The author first sketches the construction of the measure μ for which $J(f) = \int_P f(p) d\mu(p)$. He next gives various conditions under which every non-negative linear functional J on \mathfrak{B} will satisfy condition (*). For a real-valued function f on P , let $\mathcal{N}_f = \{p : f(p) \neq 0\}$. If \mathfrak{M} and \mathfrak{N} are linear

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MARIK, JAN

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✓ Marik, Jan. On quadratic polynomials which take on numerous prime values. Casopis Pěst. Mat. 78 (1953), 57-58. (Czech)

The author quotes a previous theorem [Casopis Pěst. Mat. Fys. 74 (1950), 164-165] to the effect that if p is a prime for which x^2+x+p is also a prime for all x for which $x^2+x \leq (p-1)/3$ then every number $< p^2$ properly represented by the form $x^2+xy+py^2$ is a prime. This theorem is closely related to a result of Frobenius [S.-B. Preuss. Akad. Wiss. 1912, 966-980; badly misquoted by Dickson in his "History of the theory of numbers", v. 1, Carnegie Inst. Washington, 1919, p. 421]. As the author points out, the known values of p for which the hypothesis holds are 2, 3, 5, 11, 17 and 41. Other quadratic functions representing numerous primes are listed. These include for example

$5x^2-5x+13, x=1(1)12, 2x^2-2x+19, x=1(1)18,$
 $x^2-x-109, x=1(1)28, x^2-x-169, x=2(1)25.$

D. H. Lehmer (Berkeley, Calif.)

3/3

Also, if f_n are Perron-Stieltjes integrable ($n=1, 2, \dots$) and $f_n \uparrow f$, then $\int_K f dG = \int_K f dG = \lim \int_K f_n dG$. Fubini's theorem is next proved, in the following form. Let K (L) be m -(n -) dimensional intervals, and let G (H) be non-negative interval functions on K (L). Then the interval-function Γ defined on $K \times L$ by $\Gamma(I \times J) = H(I)G(J)$ is additive, superadditive, or subadditive, provided that G and H have these properties, respectively. If $f(x, y)$ is Perron-Stieltjes integrable on $K \times L$ with respect to Γ , then

$$\begin{aligned} & \int_K \left[\int_L f(x, y) dH(y) \right] dG(x) \\ &= \int_K \int_L f(x, y) dH(y) dG(x) = \int_{K \times L} f(x, y) d\Gamma. \end{aligned}$$

A variety of special one-dimensional theorems are proved. Integration by parts is justified, and indefinite integrals of various kinds are discussed. Part III treats absolutely convergent integrals (sic). It is shown, for example, that f and $|f|$ are Perron-Stieltjes integrable if and only if for every $\epsilon > 0$, there exists a continuous function ϕ such that $\int_K |f - \phi| dG < \epsilon$. Interval functions of finite variation are examined in great detail. The theory of measure, based on Perron-Stieltjes integrals of characteristic functions of sets, is also set forth. 36 exercises, some of them decidedly non-trivial, are provided. *E. Hewitt (Seattle, Wash.)*

2/3

JAN MARIK

tion on K , the upper derivative $F(G, x, K)$ of P with respect to G at $x \in K$ is the supremum of all numbers $\lim_{\delta \rightarrow 0} P(I_\delta)/G(I_\delta)$, where $x \in I_\delta$ and $\text{diam}(I_\delta) \rightarrow 0$. The lower derivative $G(G, x, K)$ is defined as the infimum of all these numbers. If both $F(I)$ and $G(I)$ are zero for all sufficiently small intervals containing x , then neither derivative exists. A number of elementary properties of these derivatives are stated and proved. Let f be a point function defined on K and let G be a finite, non-negative, additive interval function on K . A superadditive interval function M on K is a majorant of f if $-\infty < M(G, x, K) \leq f(x)$ for all $x \in K$. The upper Perron-Stieltjes integral of f , written $\int_K f dG$, is the infimum of all $M(K)$, where M runs through all majorants of f . The lower integral $\int_K f dG$ is the supremum of $N(K)$, where N runs through all minorants of f . If the upper and lower integrals are equal and finite, their common value is the Perron-Stieltjes integral of f with respect to G over K , written $\int_K f dG$. A large number of elementary theorems concerning these integrals are given. For example, it is shown that if the Riemann-Stieltjes integral exists, then so does the Perron-Stieltjes integral, and both are equal.

CONT

Mar. 1, Jan.

1/3

Mařík, Jan. Foundations of the theory of the integral in Euclidean spaces. Časopis Pěst. Mat. 77, 1-51, 125-145, 267-301 (1952). (Czech)

Mařík, Jan. Abstract of the article "Foundations of the theory of integration in Euclidean spaces". Československ. Mat. Z. 2(77), 273-277 (1952). (Russian, English summary)

This is a careful exposition of the theory of the Perron-Stieltjes integral in several dimensions, apparently designed for readers with modest mathematical attainments, since many elementary facts are painstakingly stated, and no knowledge of advanced topics is assumed (for example, the Lebesgue integral is nowhere mentioned). Part I is of an introductory nature. In Part II, the Perron-Stieltjes integral in several dimensions is defined. An interval is a non-degenerate closed m -dimensional parallelotope. Let K be an m -dimensional interval. An extended-real-valued function G defined for all subintervals of K (an interval function on K) is said to be superadditive (subadditive, additive) if $G(I \cup J) \geq G(I) + G(J)$ (\leq , $=$) for all intervals $I, J \subset K$ such that $I \cap J$ is an interval, I and J have disjoint interiors, and $G(I) + G(J)$ is not of the form $\infty - \infty$. If F is an interval function on K and G is a finite non-negative interval func-

OVER

MARIK, Jan (Praha).

Reducibility of the determinant with variables as elements, when
regarding it as a polynomial over a commutative ring. *Czech. mat.*
zhur. 2 no.3:279-293 N '52. (MLRA 7:2)
(Polynomials)

MARIK, Jan (Praha).

Abstract of the article "Foundations of the theory of intergration
in Euclidian spaces." Chekh.mat.zhur. 2 no.3:273-277 H '52.
(MLRA 7:2)

(Integrals) (Spaces, Generalized)

MARIK, J.

Mathematical Reviews
Vol. 14 No. 10
Nov. 1953
Algebra

60 110 (2)

Mařík, Jan. The Verlagerung of a group into its subgroups.
Časopis Pěst. Mat. 76, 23-34 (1951). (Czech)

This paper contains a detailed explanation of the first, and partly the second, paragraph of the last chapter, entitled "Verlagerung in eine Untergruppe", of H. Zassenhaus's "Lehrbuch der Gruppentheorie" [Teubner, Leipzig-Berlin, 1937]. The original text of the above paragraphs is rather difficult. The author adds some simple applications of the theory, e.g., the proof that there is no simple group of order 144. O. Borůvka (Brno).

6-23-54
LL

MARIK, JAN

Mařík, Jan. La réductibilité du déterminant ayant des indéterminées pour éléments, si l'on le considère comme un polynôme sur un anneau commutatif. Acta Fac. Nat. Univ. Carol., Prague no. 191 (1949), 11 pp. (1949).

Let R be a commutative ring with unit element 1, and x_{ij} , $i, j=1, 2, \dots, n$, be indeterminates over R . The author considers the reducibility of the determinant $D = |x_{ij}|$ in the ring $P = R[x_{11}, x_{12}, \dots, x_{nn}]$. Thus D is reducible if it can be expressed as the product of two elements of P , neither of which is a unit of P . If R is expressible as the direct sum of two rings, that is, if there exist nonzero idempotents j_1 and j_2 of R such that $j_1 + j_2 = 1$, $j_1 j_2 = 0$, then D is reducible since we can write $D = (j_1 + j_2 D)(j_1 + j_2 D)$. The principal result is that D is reducible if and only if R can be expressed as the direct sum of two rings. N. H. McCoy.

Source: Mathematical Reviews, Vol. 12, No. 2

MARIK, JAN: The Reducibility of the Determinant Having Indeterminates for Elements, if Determinant is Considered as a Polynomial on a Commutative Ring

Jan

MAR 11, 1950

2/20

Marik, Jan. Estimate of mean values of integrals and criteria for the convergence of improper integrals. *Casopis Pěst. Mat. Fys.* 73, D49-D52 (1949). (Czech)

Let f and g be real functions, f integrable and g of bounded variation V on $a \leq x \leq b$. The author proves the existence of a number ξ , $a \leq \xi \leq b$, such that

$$\left| \int_a^b fg dx \right| \leq \{V + |g(b)|\} \left| \int_a^b f dx \right|$$

and uses this inequality to prove sufficient conditions for the existence of the (possibly infinite or improper) integral $\int_a^b fg dx$. These are: for every c , $a < c < b$, f is properly Riemann integrable over (a, c) and the total variation of g in (a, c) is less than B (independent of c), and either $\lim_{c \rightarrow b} \int_a^c f dx$ exists or $|\int_a^c f dx| < A$ for all c , and $\lim_{x \rightarrow b} g(x) = 0$.

A. Erdélyi (Pasadena, Calif.).

Sm
Jan

Source: *Mathematical Reviews*,

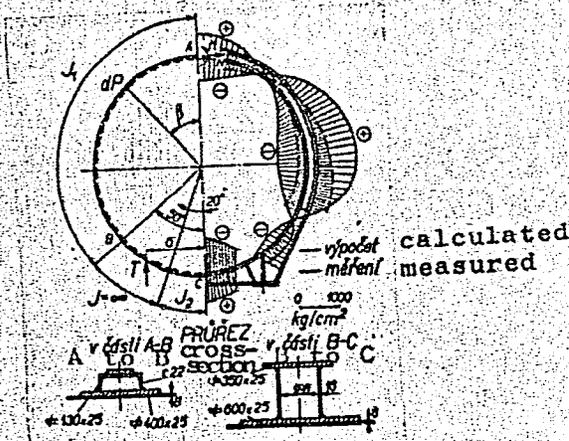
Vol. 10 No. 8

Contribution to the paper...

Z/032/63/013/004/002/011
EO73/E535

ASSOCIATION: Strojirny Tatra, Kolin
(Tatra Engineering Works, Kolin)

Fig. 3: Legend:
Loads and stresses
in the reinforcing
ring



Card 3/3

Contribution to the paper ...

Z/032/63/013/004/002/011
E073/E535

(Flächentragwerke, Springer-Verlag, Wien 1956). The reinforcing ring was assumed as being a circular girder loaded by forces dP which were tangential to the line through the center, the ... the magnitude of which is expressed by:

$$dP = \frac{2T}{\pi} \sin \beta d\beta \tag{4}$$

and to individual forces T . The calculated stresses in the reinforcing ring proved to be considerably higher than those measured on the prototype (Fig.3) and subsequent cisterns were then made with less reinforcement. For calculating the required dimensions of the reinforcement rings it is essential to know the real magnitudes of the forces dP . Extensive measurements have shown that the sinusoidal distribution of these forces (Lessig, E.N. Vestnik inzhenerov i tekhnikov, no.4, 1953) is sufficiently accurate for rings with rotational symmetry. In the case of non-symmetry more laborious calculations are required to obtain accurate results but, although yielding only approximate results, the use of Eq.(4) proved satisfactory, giving an adequate degree of safety. There are 5 figures.

Card 2/3

Z/032/63/013/004/002/011
E073/E535

AUTHOR: Mařík, J., Engineer

TITLE: Contribution to the paper "Strength calculation of a supported cylindrical shell" (by Engineer J. Valenta, Strojirenství, no. 4, 1962)

PERIODICAL: Strojirenství, v. 13, no. 4, 1963, 273-275

TEXT: The author of this contribution was concerned with the design of a large mobile cistern to hold fuel oil for a mobile power station mounted on standard-gauge railroad rolling stock. The cistern dimensions were: length 22 m, diameter 2.7 m, spacing between the two extreme points of support 17.2 m, spacing between the inner points of support 14 m, capacity 125 m³, weight empty ~29 t, weight full 150 t. The principle was to transport the empty cistern to its destination and then fill it with fuel oil. Basically, this cistern was a horizontal, cylindrical tank placed on two supports. It was assumed that before filling, the springing of the bogies would be put out of operation and the cistern would rest on the inner supports or that, after arriving at its destination, special outer supports would be fitted (spacing 7.2 m). The calculation was based on formulas published by K. Girkmann

Card 1/3

MARIK, J.

A new law on industrial accidents and professional diseases. p.259.
(Pozemni Stavby, Vol. 5, No. 5, May 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

MARIK, FRANTIŠEK.

Hornické dopravnictví. [Vyd. 1.] Praha, Státní pedagogické nakl., 19(53)
Vol. 2. (Učební texty vysokých škol) [Transportation in mining. Diagrams]

SO: Monthly List of ~~Russian~~ East European Accessions, Vol. 3, No. 2, February, ~~1954~~ 1954 Uncl.

MARIK, FRANTISEK

Hutnicke depravnictvi. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1952. 233 p.
(Ucebni texty vysokych skol) [Transportation in the metallurgical industry. Bibl.,
diagrs.]

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, LC., VOL. 3, No. 1, Jan. 1954, Uncl.

KRAL, L., Praha 4, nam. Hrdinu 8; CERMAK, V.; MARIK, A.; SKOKAN, Z.V.;
SYROVY, J.

Leiomyomas of the lung. Cas. lek. Cesk. 104 no.42:1145-1149
22 0 '65.

1. Chirurgicke oddeleni nemocnice Na Frantisku v Praze 1
(vedouci MUDr. V. Cermak), Rentgenologicke oddeleni nemocnice
Na Frantisku v Praze 1 (vedouci MUDr. J. Syrový), Rentgenolo-
gicke oddeleni polikliniky Obvodního ustavu narodního zdravi
v Praze 1 (vedouci MUDr. Z.V. Skokan) a Tuberkulozni oddeleni
polikliniky Obvodního ustavu narodního zdravi v Praze 1 (vedouci
MUDr. B. Vodickova). Submitted October 1964.

MARIK, A.

SURNAME, Given Names

10

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation:

Source: Prague, Rozhledy v Tuberkulose a v Nemocich Plicnich, Vol XXI, No 6, July 61, pp 473-475.

Data: "Unusual Type of Pulmonary Haemoblastoma."

Authors: LICHTENBERG, J., presumably First Clinic of Surgery, KU [Karlova universita; Charles University] (I. chirurgicka klinika, KU), Prague; Director: Prof Dr J. PAVROVSKY.

PESEK, M., [presumably] First Clinic of Surgery, KU, Prague.
MARIK, A., [presumably] TB Department FN I. [not identified] (Tbc oddeleni, FN I), Prague; Director: Dr. J. POLANSKY.

STEJSKAL, J., [presumably] First Institute of Pathological Anatomy, KU [Karlova universita; Charles University] (I. patologicko-anatomicky ustav, KU), Prague; Director: Prof Dr. B. BEDNAR.

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GPO 981643

MAEIJAN-TANKOVIC, NADA

Cardiac and vascular action of isosorb in animals. Nada
 Maekovic (Fac. Med. Zagreb, Yugoslavia). *Arch.
 Pharm. Toxicol.* 1, 111-6 (1957). The pharmacol. action
 of isosorb (I) has been studied in different animals. In
 the isolated frog heart (I) at a diln. of 5×10^{-4} it reduces the
 diastolic and, somewhat less, the systolic amplitudes. It
 reduces also the heartbeat frequency and cardiac output.
 In the isolated guinea pig heart (5×10^{-4} diln.) increases
 the systolic and diastolic tensions with a simultaneous in-
 crease in heartbeat frequency; no direct influence on blood
 flow in coronary vessels is observed. In the heart-lung
 prepn. of the dog, 5-10 mg. I causes a slight increase of the
 arterial and lowering of the venous blood pressure. Blood
 flow in the rat's hind extremities is lowered 33% by 10 mg.
 In the dog and cat I (5-15 mg.) increases the blood pres-
 sure 12-30% above normal. This effect is not influenced
 by epinephrine tartrate, Prisolol, Euparcol, or following lig-
 ature of the suprarenal vesicle. K. Zelenka

MARIINSKIY, Yevgeniy Pakhomovich, Geroy Sovetskogo Soyuza, zhurnalist;
LANINA, L.I., red.; ATROSHCHENKO, L.Ye., tekhn. red.

[Fifteen centimeters to earth]Do Zemli 15 santimetrov. Moskva,
Izd-vo "Znanie," 1963. 47 p. (Novoe v zhizni, nauke, tekhnike.
X Seria: Moldezhnaia, no.3) (MIRA 16:2)
(World War, 1939-1945—Personal narratives)
(Air pilots)

KALUGINA, T.S.; MARIICH, V.A.

Manganese mineralization in the iron-bearing horizon of Devonian
volcanic sediments in the western part of the Altai. Trudy
SNIIGGIMS no.35:163-176 '64. (MIRA 18:5)

MARIICH, L.I.

Selecting the catalyst for the production of sulfur-free benzene.
Khim. prom. no.4:13-15 O-D '64. (MIRA 18:3)

MARLECH, L.I.

Obtaining high-purity grades of benzene. Khim. prom. [Ukr.] no. 2:6-8
Apr-June '65. (MIRA 18:6)

MARIICH, L.I.

Using gas-liquid chromatography for analyzing the composition of benzene fractions and of the hydrofined BTX fraction. Koks 1 khim. no.3:41-46 '64. (MIRA 17:4)

1. Ukrainskiy uglekhimicheskiy institut.

YERU, I.I.; LANGE, A.A.; MARIICH, L.I.

Catalytic hydrofining of the BTX fractions of some coke plants.
Koks i khim. no.7:48-50 '63. (MIRA 16:8)

1. Ukrainskiy uglekhimicheskiy institut.
. (Coke industry--By-products) (Benzene)

MARIICH, I.I.

Catalytic hydrofining method for complete desulfurization of coke-chemical benzene. Khim. prom. 41 no.1:26-29 Ja '65. (MIRA 18:3)

1. Ukrainskiy uglekhimicheskiy institut.

YERU, I.I.; LANGE, A.A.; MARIICH, L.I.; SOKOLOV, V.Z.; YEMEL'YANOVA, L.P.

Purification of the fractions of crude benzene by catalytic hydrogenation in coke-chemical plants of the Soviet East. Koks i khim. no.11:41-43 '61. (MIRA 15:1)

1. Ukrainskiy uglekhimicheskiy institut (for Yeru, Lange, Mariich).
2. Vostochnyy uglekhimicheskiy institut (for Sokolov, Yemel'yanova). (Soviet Far East--Benzene)

AMSHINSKIY, N.N.; MARIICH, I.V.; MOLCHANOV, V.I.; ORLOVA, L.I.;
GORB, A.M.; KUZNETSOV, Yu.A., nauchn. red.; SMORCHKOV,
I.Ye., nauchn. red.; KRYZHANOVSKIY, V.A., ved.red.

[Accessories of the granitoids of the Altai and methods
for studying them] Aktsessorii granitoidov Altaia i me-
todika ikh izucheniia. Moskva, Nedra, 1964. 175 p.
(MIRA 17:10)

1. Chlen-korrespondent AN SSSR (for Kuznetsov).

L 07134-67 EWI(d)/FSS-2

ACC NR: AP7001046

SOURCE CODE: UR/0106/66/000/008/0001/0007

MARIGODOV, V. K.

~~ORG: none~~

42
B

"Estimation of the Degree of Weakening of Non-linear Noise in a Communications Channel with Predistortion"

Moscow, Elektrosvyaz', No 8, 66, pp 1-7

Abstract: An investigation of the change in spectral distribution of the products of second and third order non-linearity in the spectrum of a signal upon the introduction of predistortion. An estimation of the gain in interference protection of signals of nonmoving images upon transmission through a standard telephone channel in a radio relay communications line with frequency compression and frequency modulation is performed. With the predistortion law selected, the average power of nonlinearity products for second order nonlinearities is reduced by a factor of 1.5, and the average power of third order non-linear noises is reduced by a factor of 3. Orig. art. has: 3 figures and 9 formulas. [JPRS: 38,490]

TOPIC TAGS: frequency modulation, communication channel

SUB CODE: 17 / SUBM DATE: 08Jul65 / ORIG REF: 002

Card 1/1 LC

UDC: 621.391.822

09240060

L 47356-65 EEC-4/EED-2/EEO-2/EWA(h)/EWT(d)/EWT(1)/EEC(t)/FSS-2 PI-4/Pn-4/Pp-4/
Pac-4/Pab JM UR/0058/65/000/002/H012/H012

ACCESSION NR: AR5009711

SOURCE: Ref. zh. Fizika, Abs. 2Zn84

AUTHOR: Marigodov, V. K.

TITLE: Concerning the suppression of static noise of a narrow-band communication channel by introduction of preemphasis

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 20, 1964, 91-98

TOPIC TAGS: telephone communication, static noise, interference immunity, frequency modulation, frequency sharing, preemphasis

TRANSLATION: The article considers the possibility of increasing the interference immunity of transmission of pulsed signals in telephone radio-relay communication lines with frequency sharing and frequency modulation. The concept of interference immunity of the channel with when preemphasis at the transformed carrier frequency of the telephone channel is introduced.

SUB CODE: EC

ENCL: 00

Card 1/1 CC

MARSHALOV, V.K.

Force compensation of the telephone channel of a radio relay station.
Trudy usheb. inst. svyazi. no.16:67-76 1968. (MIRA 17:10)

Leningradskiy elektrotekhnicheskii institut svyazi im. prof.
N.A. Bonch-Bruyev. 1968.

YUGOSLAVIA

M. MARIGO, Department of Forensic and Insurance Medicine of Padua University (Istituto di medicina legale e delle assicurazioni dell'Universita di Padova), Padua, Italy.

"Chemical and Toxicologic Studies of Psychotropic Drugs."

Zagreb, Arhiv za Higijenu Rada i Toksikologiju, Vol 13, No 4, 1962; pp 329-333.

Abstract [English summary modified]: Essentially a literature review of subject. Tables show a classified listing of tranquilizers et al. (including barbiturates, LSD) and paper- or thin-layer chromatographic analysis solvents and reagents for 12 common drugs as previously reported in the literature. Two tables, 29 Western references.

1/1

MARIGODOV, V.K.

Video signal compensation in narrow-band radio relay communication line channels. *Sudy ucheb. inst. aviatsii* no.14:67-76 '63. (MIA 17:9)

1. Leningradskiy elektrotekhnicheskoy institut avialtsii.
prof. M.A. Bonch-Bruyevicha.

MARIFAY, Edit

Data on the psychopathology and therapy of transvestism. I. Ideg. szemle
11 no.4:127-133 Oct 58.

1. Országos Ideg- és Elmegyógy intezet, Budapest. (Igazgato: Dr. Maria
Bela) kozlomenye.

(SEXUAL DEVIATION
transvestism, psychopathol. & ther. (Hun))

RUMANIA

OLTEANU, N., Lieutenant-Colonel, Medical Corps; LUCACIUC-BRAMBIER, A., Colonel, Medical Corps; BCERAS, F., Captain, Medical Corps; POLOJINTEV, C., Major, Medical Corps; and MARIETA, Petre, Dr.

"Transplantation of Corneal Layer Homografts with Different Type of Preservation. New Possibilities of Action for the Clarification of the Transplants"

Bucharest, Revista Sanitara Militara, Vol 16, Special No., 1965; pp 243-246

Abstract: Data on 54 operations of corneal transplantation done at Central Military Hospital, Bucharest, in 18 months; local irradiation treatment and pre- and post-operative use of fresh (3) dried (3) lyophilized (1) and cold-stored (18) corneal transplants; use of hydrocortisone, gamma globulin and hyaluronidase topically in order to prevent vasculature from infiltrating the graft. Except in one group of 11 patients with nearly total transplants, results were very promising. 1 table.

1/1

KLANG, M.; MARIENSCU, S.

Aspects of the conversion of ricinoleic acid to sebacic acid. Rev chimie Min petr 15 no.9:542-545 S '64.

CUREA, I.; MIHAILESCU, Dtr.; TORO, E.; CUREA, O., prof.; BERCEI, E.;
GHEREGA, O.; JURA, C., conf.; OHANOVICI, N.; SINITEANU, D., asist.;
LAMOTH, P., conf.; POLICEC, A., asist.; MARIENUT, U., asist.;
STURZ, I.; OITA, V.; BAEA, R.; MUNTEANU, A.; SCHIFF, A., asist.

Total solar eclipse of February 15, 1961. Studii astron seismol 7
no. 2: 247-258 '62.

1. Membru al Comitetului de redactie, "Studii si cercetari de astronomie
si seismologie" (for I. Curea). 2. Studenti la Institutul Pedagogic
Timisoara (for Bercei and Gherega).

ACC NR: AT7005723

rolling, while a reverse transformation occurred with tempering, probably because of nitrogen diffusion in the α -phase. A relatively low ($1.85 \cdot 10^4 \text{ kg/mm}^2$) modulus of the normal elasticity can be explained by a high degree of strain hardening. A tensile strength of about 272, 280 and 290 kg/mm^2 was obtained with aging at -200 , $+100$ and 395°C , respectively, at an almost constant elongation of 0.75% in the -200 — $+300^\circ\text{C}$ range. Nontempered and tempered (regardless of the conditions) specimens had a 0.98—0.99 ratio of (0.2) yield strength to tensile strength. Transverse specimens had a slightly higher tensile strength than the longitudinal. The metal also had a low stress sensitivity factor of 1.07 and 1.17 for longitudinal and transverse specimens, respectively. The best strength characteristics were obtained with aging at 395°C . Subzero treatment to bring about the γ - α phase transformation was unsuccessful, probably because of the stabilization of austenite. The ductility (the elongation-to-hardness ratio) was constant for all aging conditions up to 450°C . The fatigue strength, determined on the basis of 10^6 cycles, was 90 kg/mm^2 .
Orig. art. has: 6 figures. [MS]

SUB CODE: 11,13/ SUBM DATE: none/ ATD PRESS: 5117

Card2/2

ACC NR: AT7005723 (A) SOURCE CODE: UR/2563/66/000/267/0015/0021

AUTHOR: Lebedev, T. A.; Korneyev, N. I.; Marientz, T. K.; Kalugin, V.F.; Krupin, V. G.; Kabanov, Yu. N.

ORG: none

TITLE: Technology of production and properties of high-strength steel strip

SOURCE: Leningrad. Politekhnicheskii institut. Trudy. no. 267, 1966, Avtomatizatsiy i tekhnologiya mashinostroyeniya (Automation and technology in the machinery industry), 15-21

TOPIC TAGS: stainless steel, high strength steel, ~~steel strip~~, ^{metal} strip rolling, ~~strip~~ mechanical property, ~~rolling technology~~/2Kh15N5AM3 steel

ABSTRACT: A technology for industrial production of high-strength steel strip has been developed. The technology utilizes the strain hardening of austenitic-martensitic type steels in thermomechanical treatment done with the use of rolling stands with multiple rollers of relatively small diameter and large supporting rollers. High-strength strip, 0.165 mm thick, was produced by rolling with an 80% reduction 2Kh15N5AM3 stainless steel containing (%): 0.24 C, 0.80 Si, 0.80 Mn, 14.50 Cr, 4.0 Ni, 2.8 Mo and 0.06 N₂. A partial transformation of austenite into martensite occurred in steel during

Card 1/2

UDC: none

MARIENBAKH, Lev Mikhailovich.

(Intensifying cupola operation) Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1954. 386 p. (55-38818)

TS231.M3

MARIENBAKH, L. M.

02
Kinetics of the chemical reactions taking place in metallurgical processes. L. M. Marienbakh. *Litetsnoe Proizvodstvo* 1952, No. 7, 13-17. — Analysis of processes occurring in smelting of metals based on published exptl. data.

J. D. Gat

CIA

9

Methods of intensification combustion in a cupola. I. M. Martenbakh and Yu. S. Sukharchuk. *Litmetso Prouzvodstva* 1952, No. 2, 15-17. --The heat requirements and heat distribution through the bed charge, the metal charge, etc. are analyzed. The factors of combustion and maintenance of required temp. are discussed. From it the conclusion is drawn that the preferred means of intensifying the performance of a cupola is to provide 3 rows of tuyères, preheat and increase the vol. of supplied air. M. Hosh

1. MARIENBAKH, L. M.
2. USSR (600)
4. Technology
7. Contemporary cupola process. Moskva, Mashgiz, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

Foundry Practice

5

Investigations of the Mechanism and Kinetics of Fuel Combustion in a Cupola. L. M. Martynovich and J. B. Susharevskii. (*Liternye Proizvolato*, 1951, No. 7; *Prizyad Otkrytiya*, 1951, 1, Dec., 342-344). (In Polish). Results of the investigations of the influence of cupola blast velocity and temperature, and coke size on (1) the composition of combustion gases at the top of the combustion zone, (2) the change in the velocities of absorption of oxygen and reduction of CO_2 , and (3) temperature distribution at the top of the combustion zone are presented. Experiments were made on the laboratory and industrial scales. —v n

19
LUBITSKIY, Lev Mikhailovich, ed.

Special kinds of founding--- 1st ed. 1. . . orientatsiya. Moskva, Izd. nauka i tekhn. 1987-88. 110-87, 1987. 2. . . (11-20 82)

TS233.77

1ST AND 2ND CROSS PROCESSING AND PROPERTIES INDEX

1ST AND 2ND CROSS

2010. COMBINATION CUPOLA OPEN HEARTH PROCESSES. Marienbach, L.M. (Vestnik Mashinostroeniya, 1946, 25, No. 9-10, 43-6) The performance of working a combination cupola open hearth is described. Ordinarily open hearth furnaces operating on the scrap processes are charged with steel scrap 60 and open hearth pig iron 40%. To obviate long distance hauls of open hearth pig, a suitable pig iron is produced in cupola's furnaces, from steel shavings and scrap. The cupola's product, either in the form of ingots or melt, is used in the open hearth charge. A number of tests is related in which an attempt was made to obtain a pig iron of suitable compn. (Low in S) and sufficiently fluid for use in the open-hearth charge. Use of powd. coal fuel (3-4%) reduced the coke consumption to 9-10% and the S content was reduced to 0.06%. C.A.

Common Elements

Common Variables with

ABB-SEA METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED

INDEXED

REF ID: A61111

CA

PROCESSES AND PROPERTIES INDEX

The theory of combustion in the cupola. L. M. Marten-
bakh. *Lutetiae Peto* 1930, No. 4, 5-10; *Khimiya Referat*.
Zhur. 1930, No. 11, 81.—Processes of activating C, forma-
tion of C compts., interaction of C + O, and conditions
for the formation of CO in the cupola, the compn. of the
gaseous phase in various zones of the cupola and the pos-
sibility of using a 2nd row of tuyeres are discussed.
W. R. Henn

ASTM-31A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND GROUPS PROCESSES AND PROPERTIES INDEX

M

Bearings of Lead-Bronze. I. M. Marienbach (*Litensk Delo (Foundry Practice)*, 1935, (2), 31-38).— [In Russian.] Methods of casting bearing bushes of lead-bronze in American and Russian works are described, with special reference to centrifugal casting, the use of a reducing atmosphere without fluxes, the mass production of bearings, and the Schoop process.— N. A.

A18-51A METALLURGICAL LITERATURE CLASSIFICATION

1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP
A	B	C	D
E	F	G	H
I	J	K	L
M	N	O	P
Q	R	S	T
U	V	W	X
Y	Z		

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PROCESSES AND PROCEDURES

The Foundries of the Khabarkoff Tractor Works. Le. M. Marientloch.
(*Liteinoe Delo (Foundry Practice)*, 1953, (8), 27-32).—(In Russian.) A description
of the non-ferrous foundry of the tractor works.—N. A.

METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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MARIE, D.

"Stabilization of Toluene." P. 215. (PRZEMYSŁ CHEMICZNY, Vol. 10, No. 4, Apr. 1954,
Warszawa, Poland)

SO; Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955 Uncl.

MARIE D

POLON

Determination of ash in coke of low ash content. A. Grossman and Q. Marie, *Premysl Chem.* 9, 407-9 (1953). (English summary) Sample method of prep. samples for detg. ash content in special coke consists of mech. milling of coke in a mill to grain diam. 1 mm., taking of a small portion, e.g. 10 g., and grinding it in an agatite mortar to a grain diam. below 0.25 mm., and removing the impurities in the form of steel powder with a magnet. G. A. W.

AM

LM

MARICOVA, D

G-2

CZECHOSLOVAKIA/ Analytical Chemistry - Analysis of
Inorganic Substances

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12105

Author : Maricova D., Povondra P.

Title : Titrimetric Determination of Arsenic in Ore

Orig Pub : Rudy, 1956, 4, No 7, 217-218

Abstract : Determination of As in ore is based on extraction of As from a hydrochloric acid solution with CCl_4 and subsequent titration with iodine. 1 g of thoroughly comminuted sample is treated with a mixture of 40 ml H_2SO_4 (1:1) and 10 ml concentrated HNO_3 , and is allowed to stand overnight, after which it is boiled until dissolved, adding concentrated HNO_3 if needed. Solution is evaporated until white fumes are evolved (SO_3), heated with 1 g sulfur for 10 minutes (to reduce As^{5+} to As^{3+}) and diluted with 30 ml water. SO_2 is removed by boiling, 70 ml concentrated HCl are added and AsCl_3 is extracted with 3

Card 1/2

MARICWIAKOWNA, AGNIESZKA

7

Effect of electrolytes on physicochemical properties of Paal silver Hydrosols. 7 II. Surface tension. 7 Agnieszka

Maricwiakówna (Univ. Poznań, Poland). *Prace Inst. Fizykol. Nauk. Wydział Mat.-Przyrod.* *Prace Komisji Mat.-Przyrod.* 7, 55-60 (1958) (English summary). Hydrosols of Na and Az protalbuminates (I) (II) were prepd. by the Paal-Amberger method (cf. *Ber.* 37, 124 (1904)). Surface tensions, γ , of 0.3% solns. were examd. in relation to time (within 40 days), NaCl, Na₂SO₄, Na₂PO₄, BaCl₂, and AlCl₃ being added (e.g. 1-10 ml. 0.1N soln. per 90 ml. of sol). γ of I was decreased with time and electrolyte addns.; γ of II was rapidly changed (usually decreased) within the 1st few days and remained subsequently almost const. II sol was neither lyophilic nor lyophobic. Smaller electrolyte addns., in general, increased its γ , whereas larger ones had various effects. I. Stockl

1/1

Distr: 4E43

9/9

SERCER, A.; PADOVAN, I.; KRMPOTIC, J.; KNEZEVIC, M.; BALOGH, M.; MILIC, N.;
SIPUS, N.; DURIN, B.; LIPOZENCIC, M.; GUSIC, B.; SPAVENTI, S.;
GOSPODNETIC, A.; PANSINI, M.; IVIC, Z.; MARINOVIC, F.; BASIC, M.;
ORESKOVIC, M.; KNEZEVIC, S.; MARICIC, Z.

Medicina. Bul sc Youg 9 no.4/5:116-117 Ag-O '64.

MARICIC, VIDAN M.

B-5

YUGOSLAVIA / Physical Chemistry. Crystals.

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25983

Author : Vidan M. Maricic.

Title : The Kinetics of the Formation of Aluminum Hydroxide by Seeding Sodium Aluminate Solutions with Hydrargillite Crystals. III. The Effect of Coarse Grained Seed.

Orig Pub : Arkhiv kemiye, 1955, 27, No 4, 215 - 216

Abstract : Using large hydrargillite crystals and, on the other hand, determining the size of particles in artificially prepared mixtures of large and minute grains used for the precipitation of aluminum oxide from sodium aluminate solutions, it was shown that large hydrargillite crystals did not influence the generation of aluminum hydroxide crystals and that the entire generation was caused by minute crystals. See Part II in RZhKhim, 1956, 50177.

Card : 1/1

BEZJAK, A.; JELENIC, I.; MARICIC, S.; MEIC, Z.

An X-ray and proton magnetic resonance study of the dehydration and deuteration of borax, $N: 2[B_4O_5(OH)_4] \cdot 8 \cdot H_2O$. Croat chem acta 35 no.4:295-303 '63.

1. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia.
2. Member of the Editorial Board, "Croatica Chemica Acta" (for Maricic).

MARICIC, S.; VEKSLI, Z.; SLIVNIK, J.; VOLAVSEK, B.

Magnetic measurements on XeF_4 . Croat chem acta 35 no.1:77-80 '63.

1. Institute "Ruder Boskovic", Zagreb, Croatia (for Maricic and Vekslj). 2. "Jozef Stefan" Institute for Nuclear Research, Ljubljana, Slovenia, Yugoslavia (for Slivnik and Volavsek).

MARICIC, S.; VEKSLI, Z

Fluorine magnetic resonance in xenon tetrafluoride. Croat chem acta
34 no.3:189-190 '62.

1. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia.

MARICIC, S.; PRAVDIC, V.; VEKSLI, Z.

Proton conductivity in lithium sulfate monohydrate, and the motion of its water molecule. Croat chem acta 33 no.4:187-195 '61.

1. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia.
2. Clan Redakcionog odbora i pomocni urednic, "Croatica chemica acta" (for Pravidic).
3. Clan Redakcionog odbora, "Croatica chemica acta" (for Maricic).

MARICIC, S.; FRAVDIC, V.

Electrolysis of borax, $\text{Na}_2[\text{B}_4\text{O}_5(\text{OH})_4] \cdot 8\text{H}_2\text{O}$. Croat chem acta 32
no.4:231-232 '60. (EEAI 10:9)

1. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia.

(Borax) (Electrolysis) (Hydrogen) (Protons)

HLOBNIK, Z.; JUNGMAN-HORVAT, E.; MARICIC, S.

Decomposition of sodium aluminate solutions. V. Coarse grained
hydrargillite seed and induced nucleation. In English. Croat
chem acta 32 no.3:145-150 '66. (ESAI 10:7)

1. Institute of Light Metals, Zagreb, Yugoslavia.
(Sodium aluminates) (Gibbsite)

JELENIC, I.; LOVRECEK, Branko; ~~MARICIC, Sinisa~~; VEKSLI, Z.

Electrical conductivity of borax. Croat chem acta 32 no.2:111-113 '60
(KEAI 1C:4)

1. Department of Structural and Inorganic Chemistry, Institute
"Ruder Boskovic" and Department of Physical Chemistry, Technological
Faculty, University of Zagreb, Zagreb, Croatia, Yugoslavia. 2.
Redakcioni odbor (Committee of Publication), Croatica Chemica Acta.
members of the Committee (for Lovrecek, Maricic)
(Borax) (Electric conductivity)

BLINC, R.; MARICIC, Sinisa; PINTAR, M.

A proton magnetic resonance and infrared study of colemanite and inyoite. Croat chem acta 32 no.2:67-73 '60. (EZAI 10:4)

1. Department of Structural and Inorganic Chemistry, Institute "Ruder Boskovic," Zagreb, and Physics Department, Institute "Jozef Stefan," Ljubljana, Yugoslavia. 2. Redakcioni odbor (Committee of Publication), Croatica Chemica Acta, member of the Committee (for Maricic)

(Colemanite)	(Inyoite)	(Protons)
(Magnetic resonance)	(Infrared rays)	